

**BAKER PERKINS SITE
SAGINAW, SAGINAW COUNTY, MICHIGAN
DATA VALIDATION REPORT**

Date: May 12, 2014

Laboratory: EA Group, Mentor, Ohio

Laboratory Project #: 1404-00451

Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON[®]) Superfund Technical Assessment and Response Team (START)

Weston Analytical Work Order #/TDD #: 20405.016.001.2317.77/ S05-0001-1404-004

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for three liquid samples and six wood block samples collected for the Baker Perkins Site that were analyzed for the following parameters and U.S. Environmental Protection Agency methods:

- Volatile Organic Compounds (VOC) by SW-846 Method 8260A
- Semivolatile Organic Carbons (SVOC) by SW-846 Method 8270C
- Polychlorinated Biphenyls (PCB) by SW-846 Method 8082A
- Total Petroleum Hydrocarbons (TPH) as Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Oil Range Organics (ORO) by SW-846 Method 8015M
- Metals by SW-846 Methods 6010B and 7471B
- Flashpoint by ASTM D93
- pH by SW-846 9045C

A level II data package was requested from EA Group. The data validation was conducted in general accordance with the EPA “Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review” dated June 2008 and “Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review” dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

VOCs by SW-846 METHOD 8260A

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BP-LIQ-01	1404-00451-001	Liquid	4/23/2014	5/1/2014
BP-LIQ-02	1404-00451-002	Liquid	4/23/2014	5/1/2014
BP-LIQ-03	1404-00451-003	Liquid	4/23/2014	5/1/2014

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection.

3. Blanks

A method blank was analyzed with the VOC analyses and was free of VOCs above the reporting limits.

4. Surrogate Results

The surrogate recovery results were within the laboratory-established quality control (QC) limits.

5. Laboratory Control Sample (LCS) Results

The LCS and LCS duplicate (LCSD) recoveries and relative percent differences (RPD) were within laboratory QC limits.

6. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

A site-specific MS and MSD were not analyzed with this work; therefore, matrix interferences could not be evaluated using the MS and MSD. No qualifications are required.

7. Overall Assessment

The VOC data are acceptable for use based on the information received.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

SVOCs by SW-846 METHOD 8270C

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
BP-LIQ-01	1404-00451-001	Liquid	4/23/2014	4/28/2014	4/30/2014
BP-LIQ-02	1404-00451-002	Liquid	4/23/2014	4/28/2014	4/30/2014
BP-LIQ-03	1404-00451-003	Liquid	4/23/2014	4/28/2014	4/30/2014

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

A method blank was analyzed with the SVOC analyses and was free of target compound contamination above the reporting limits.

4. Surrogate Results

The surrogate recoveries were within QC limits.

5. LCS Results

The percent recoveries for the LCS results were within the laboratory-established QC limits.

6. MS and MSD Results

A site-specific MS and MSD were not analyzed with this work; therefore, matrix interferences could not be evaluated using the MS and MSD. For the MS and MSD that were analyzed, the percent recoveries and RPDs were mostly within QC limits with some minor discrepancies. No qualification was warranted.

7. Overall Assessment

The SVOC data are acceptable for use based on the information received.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

PCBs by SW-846 METHOD 8082A

1. Samples

The following table summarizes the samples for which this data validation was conducted.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
BP-LIQ-01	1404-00451-001	Liquid	4/23/2014	4/29/2014	4/29/2014
BP-LIQ-02	1404-00451-002	Liquid	4/23/2014	4/29/2014	4/29/2014
BP-LIQ-03	1404-00451-003	Liquid	4/23/2014	4/29/2014	4/29/2014
BP-WB-01	1404-00451-004	Wood	4/23/2014	4/28/2014	4/29/2014
BP-WB-02	1404-00451-005	Wood	4/23/2014	4/28/2014	4/29/2014
BP-WB-03	1404-00451-006	Wood	4/23/2014	4/28/2014	4/29/2014
BP-WB-04	1404-00451-007	Wood	4/23/2014	4/28/2014	4/29/2014
BP-WB-05	1404-00451-008	Wood	4/23/2014	4/28/2014	4/29/2014
BP-WB-DUP1	1404-00451-009	Wood	4/23/2014	4/28/2014	4/29/2014

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

A method blank was analyzed with the PCB analysis and was free of target compound contamination above the reporting limit.

4. Surrogates

In several samples, one of the two surrogates was outside QC limits; however, the other surrogate was within QC limits. No qualifications were applied.

5. LCS Results

The LCS and LCSD recoveries and RPDs were within the laboratory-established QC limits.

6. MS and MSD Results

A site-specific MS and MSD were not analyzed with this work; therefore, matrix interferences could not be evaluated using the MS and MSD. For the MS and MSD that were analyzed, the percent recoveries and RPDs were within QC limits.

7. Field Duplicate Results

Sample BP-WB-DUP1 is a field duplicate of sample BP-WB-02. The RPD for the detected PCB was less than 50 percent which is acceptable.

8. Overall Assessment

The PCB data are acceptable for use based on the information received.

TPH by SW-846 METHOD 8015M

1. Samples

The following table summarizes the samples for which this data validation was conducted.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
BP-LIQ-01	1404-00451-001	Liquid	4/23/2014	4/29/2014	4/30/2014
BP-LIQ-02	1404-00451-002	Liquid	4/23/2014	4/29/2014	4/30/2014
BP-LIQ-03	1404-00451-003	Liquid	4/23/2014	4/29/2014	4/30/2014

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

Method blanks were analyzed with the TPH analyses and were free of target compound contamination above the reporting limit.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

4. Surrogates

In several instances, the surrogates were not adequately recovered due to high concentrations of target compounds requiring high sample dilutions. No qualifications are required in these instances.

5. LCS Results

The LCS and LCSD recoveries and RPDs were within the laboratory-established QC limits.

6. MS and MSD Results

A site-specific MS and MSD were not analyzed with this work; therefore, matrix interferences could not be evaluated using the MS and MSD. For the MS and MSD that were analyzed, the percent recoveries and RPDs were within QC limits.

7. Overall Assessment

The TPH data are acceptable for use based on the information received.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

TOTAL METALS BY SW-846 METHODS 6010B AND 7471B

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BP-LIQ-01	1404-00451-001	Liquid	4/23/2014	4/29/2014 – 5/1/2014
BP-LIQ-02	1404-00451-002	Liquid	4/23/2014	4/29/2014 – 5/1/2014
BP-LIQ-03	1404-00451-003	Liquid	4/23/2014	4/29/2014 – 5/1/2014

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days from sample collection to analysis for mercury and 180 days from sample collection to analysis for all other metals.

3. Blank Results

Method blanks were analyzed with the metals analysis. The blanks were free of target analyte contamination above the reporting limits.

4. LCS Results

The LCS recoveries were within the laboratory-established QC limits.

5. MS and MSD Results

A site-specific MS and MSD were not analyzed with this work; therefore, matrix interferences could not be evaluated using the MS and MSD. No qualifications were required.

6. Overall Assessment

The metals data are acceptable for use based on the information received.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

GENERAL CHEMISTRY PARAMETERS (Flashpoint by ASTM D93 and pH by 9045C)

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
BP-LIQ-01	1404-00451-001	Liquid	4/23/2014	5/2/2014 – 5/5/2014
BP-LIQ-02	1404-00451-002	Liquid	4/23/2014	5/2/2014 – 5/5/2014
BP-LIQ-03	1404-00451-003	Liquid	4/23/2014	5/2/2014 – 5/5/2014

2. Holding Times

The methods state to analyze for flashpoint and pH as soon as possible. Because these samples were waste matrices consisting of oil, the holding times are acceptable.

3. Laboratory Duplicate Results

A laboratory duplicate was analyzed with the pH analyses and the RPD was within QC limits.

4. Overall Assessment

The flashpoint and pH data are acceptable for use based on the information received.

Data Validation Report
Baker Perkins Site
EA Group
Laboratory Project #: 1404-00451

ATTACHMENT

**EA GROUP
RESULTS SUMMARY**



Analytical Data Package

Prepared for:

Weston Solutions
20 North Wacker St., #1210
Chicago, IL 60606

Client Project:
Baker Perkins SA

EA Group Workorder:

1404-00451



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Analytical Results



EA GROUP

Environmental Analysis
and Management

Weston Solutions
20 North Wacker St., #1210
Chicago, IL 60606
Lisa Graczyk

Client Project Baker Perkins SA
EA Group Workorder Number: 140400451
Received on April 25, 2014

The following analytical report contains results as requested for samples submitted to EA Group. The results included in this report have been reviewed for compliance with the analytical methods indicated in this report. All data has been found to be compliant with accepted laboratory protocol, except as noted in the QC narrative. Industrial hygiene reports, air and/or surface concentrations results are based upon sampling information provided by the client. Industrial hygiene results will not be blank corrected. Analyst initials of REF indicate analysis performed at a subcontract facility.

If you have questions, comments or require further assistance regarding this report, please contact your client services representative or one of the individuals listed below.

Data or reporting:

Debbie Lauer - Lab Manager Mike Herbert
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Invoice Related:

Bonnie Renbarger - Office Manager
brenbarger@eagroupohio.com

Reproduction of this report is prohibited except in its entirety . Unless noted, soil, sludge and sediment results are reported on dry weight basis. The "Sample Reporting Limit" is based on the method used for analysis and does not refer to any regulatory limit. These results relate only to the items tested.



EA GROUP

Environmental Analysis
and Management

Laboratory Analytical Report

Weston Solutions

20 North Wacker St., #1210
Chicago, IL 60606

Attention:
Lisa Graczyk

Client Project:

Baker Perkins SA

EA Group Workorder:

1404-00451

Deborah L. Lauer
Laboratory Manager

May 6, 2014



EA GROUP

Environmental Analysis
and Management

Sample Receive Date 4/25/2014

Sample Listing

EAG <u>Sample Identification</u>	Client <u>Sample Identification</u>
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140400451	- 001 BP-LIQ-01
140400451	- 003 BP-LIQ-03
140400451	- 005 BP-WB-02
140400451	- 007 BP-WB-04
140400451	- 009 BP-WB-DUP1

EAG <u>Sample Identification</u>	Client <u>Sample Identification</u>
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140400451	- 002 BP-LIQ-02
140400451	- 004 BP-WB-01
140400451	- 006 BP-WB-03
140400451	- 008 BP-WB-05



Project Narrative 1404-00451

All analyses performed by EA Group were done using established laboratory SOPs. Management has reviewed the data for compliance with the laboratory QA/QC plan and data have been found to be compliant with the laboratory protocols unless otherwise noted below. All results listed for this report relate only to the samples submitted on this work order.

The temperature of the sample(s) upon receipt was 5.9°C. Samples were received on wet ice.

Organic Analyses

Due to the measurement of uncertainty associated with the methods and the need to perform large dilutions, the total amount of analyte found can exceed 100%.

GC/MS Semi-Volatiles Analysis

The MS/MSD associated with Data Entry Batch 129136 was performed on a sample from a different project, 1404-00428-003, and was entered under Data Entry Batch 129137.

PCB Analysis

The MS/MSD associated with Data Entry Batch 129179 was performed on a sample from a different project, 1404-00494-001, and was entered under Data Entry Batch 129219.

Metals Analysis

The MS/MSD associated with Data Entry Batch 129161 was performed on a sample from a different project, 1404-00428-001, and was entered under Data Entry Batch 129143. Several elements recovered outside the control limits due to the non-homogeneity of the sample. A post digestion spike was analyzed.



Project Narrative 1404-00451

Misc. QC Comments

Percent Moisture is used to report results on a dry weight basis.

When necessary, reporting limits of individual samples may be raised due to high concentration of interfering compounds or target analytes, or quantity of sample available for analysis.

pH method note: If this analysis was performed in the laboratory, it may not meet the "immediate analysis" requirement that applies to most wastewater monitoring samples. In such cases, analysis for pH should be done at the time of sampling.

The results listed in this report relate only to the samples submitted to EA Group per the chain of custody.

Data Flag Table

- B The method blank contained a standard laboratory contaminant (Methylene Chloride, Acetone, Hexane, Phthalates, etc.) above the standard laboratory method detection limit. If the analyte is present in the sample at a concentration up to ten times the blank level, the result is reported with a "B" indicating method blank contamination. Samples will be reported without a "B" if the analyte concentration in the sample is greater than ten times the blank level.
- E An analytical result marked with an "E" indicates the result reported is above the high end limit of the calibration curve and should be considered an estimated concentration.
- DIL Due to matrix interference or high analyte concentration, a dilution was required. The spikes and/or surrogates results could not be quantitated and therefore marked "DIL".
- J An analytical result marked with a "J" indicates the result reported was below the standard reporting limit and above the method detection limit. As the observed level approaches the MDL there is an increasing probability of a false positive response.
- MI Analytical results marked as "MI" indicate that due to inherent matrix interference, the result could not be quantitated.
- # Results flagged "#" indicate the reported result may be outside allowable permit levels as provided by the client, when applicable.
- NA A result or field marked as "NA" indicates that it was not applicable for this project.
- Q A quality control result flagged with a "Q" indicates the percent recovery was outside the acceptable range as determined by the laboratory.

** Positive results for this analyte represent a probable combination of 3-Methylphenol (m-Cresol) and 4-Methylphenol (p-Cresol).



EAG Workorder: 1404-00451

Client Project: Baker Perkins SA

Client ID: BP-LIQ-01

Date/Time Sampled: 4/23/2014 / 0950

Received: 4/25/2014

EAG ID: 1404-00451-1

Parameter	CAS #	Result	Reporting Limit	Units	Prep Date	Date	Time	Analyst
Aluminum: SW846-6010B	7429-90-5	<110	110	mg/kg	4/28/2014	5/01/2014		CMB
Antimony: SW846-6010B	7440-36-0	<8.6	8.6	mg/kg	4/28/2014	5/01/2014		CMB
Arsenic: SW846-6010B	7440-38-2	<4.3	4.3	mg/kg	4/28/2014	5/01/2014		CMB
Barium: SW846-6010B	7440-39-3	<2.2	2.2	mg/kg	4/28/2014	5/01/2014		CMB
Beryllium: SW846-6010B	7440-41-7	<1.1	1.1	mg/kg	4/28/2014	5/01/2014		CMB
Cadmium: SW846-6010B	7440-43-9	<1.1	1.1	mg/kg	4/28/2014	5/01/2014		CMB
Calcium: SW846-6010B	7440-70-2	<220	220	mg/kg	4/28/2014	5/01/2014		CMB
Chromium: SW846-6010B	7440-47-3	<2.2	2.2	mg/kg	4/28/2014	5/01/2014		CMB
Cobalt: SW846-6010B	7440-48-4	<2.2	2.2	mg/kg	4/28/2014	5/01/2014		CMB
Copper: SW846-6010B	7440-50-8	26.3	11	mg/kg	4/28/2014	5/01/2014		CMB
Iron: SW846-6010B	7439-89-6	30.6	22	mg/kg	4/28/2014	5/01/2014		CMB
Lead: SW846-6010B	7439-92-1	9.54	4.3	mg/kg	4/28/2014	5/01/2014		CMB
Magnesium: SW846-6010B	7439-95-4	<110	110	mg/kg	4/28/2014	5/01/2014		CMB
Manganese: SW846-6010B	7439-96-5	3.62	2.2	mg/kg	4/28/2014	5/01/2014		CMB
Mercury: SW846-7471B	7439-97-6	<0.096	0.096	mg/kg	4/29/2014	4/29/2014		CMB
Nickel: SW846-6010B	7440-02-0	<1.1	1.1	mg/kg	4/28/2014	5/01/2014		CMB
Potassium: SW846-6010B	7440-09-7	<140	140	mg/kg	4/28/2014	4/29/2014		CMB
Selenium: SW846-6010B	7782-49-2	<11	11	mg/kg	4/28/2014	5/01/2014		CMB
Silver: SW846-6010B	7440-22-4	<2.2	2.2	mg/kg	4/28/2014	5/01/2014		CMB
Sodium: SW846-6010B	7440-23-5	288	110	mg/kg	4/28/2014	5/01/2014		CMB
Thallium: SW846-6010B	7440-28-0	<4.3	4.3	mg/kg	4/28/2014	5/01/2014		CMB
Vanadium: SW846-6010B	7440-62-2	<11	11	mg/kg	4/28/2014	5/01/2014		CMB
Zinc: SW846-6010B	7440-66-6	218	4.3	mg/kg	4/28/2014	5/01/2014		CMB
Flashpoint: ASTM D93		>200		degrees F			5/05/2014	REF
Corrosivity: SW846-9045C		7.1		pH units	5/02/2014	5/02/2014		SLD



EAG Workorder: 1404-00451

Client Project: Baker Perkins SA

Client ID: BP-LIQ-02

Date/Time Sampled: 4/23/2014 / 1005

Received: 4/25/2014

EAG ID: 1404-00451-2

Parameter	CAS #	Result	Reporting Limit	Units	Prep Date	Date	Time	Analyst
Aluminum: SW846-6010B	7429-90-5	<110	110	mg/kg	4/28/2014	5/01/2014		CMB
Antimony: SW846-6010B	7440-36-0	<8.4	8.4	mg/kg	4/28/2014	5/01/2014		CMB
Arsenic: SW846-6010B	7440-38-2	<4.2	4.2	mg/kg	4/28/2014	5/01/2014		CMB
Barium: SW846-6010B	7440-39-3	<2.1	2.1	mg/kg	4/28/2014	5/01/2014		CMB
Beryllium: SW846-6010B	7440-41-7	<1.1	1.1	mg/kg	4/28/2014	5/01/2014		CMB
Cadmium: SW846-6010B	7440-43-9	<1.1	1.1	mg/kg	4/28/2014	5/01/2014		CMB
Calcium: SW846-6010B	7440-70-2	<110	110	mg/kg	4/28/2014	5/01/2014		CMB
Chromium: SW846-6010B	7440-47-3	<2.1	2.1	mg/kg	4/28/2014	5/01/2014		CMB
Cobalt: SW846-6010B	7440-48-4	<2.1	2.1	mg/kg	4/28/2014	5/01/2014		CMB
Copper: SW846-6010B	7440-50-8	<11	11	mg/kg	4/28/2014	5/01/2014		CMB
Iron: SW846-6010B	7439-89-6	<21	21	mg/kg	4/28/2014	5/01/2014		CMB
Lead: SW846-6010B	7439-92-1	<4.2	4.2	mg/kg	4/28/2014	5/01/2014		CMB
Magnesium: SW846-6010B	7439-95-4	<110	110	mg/kg	4/28/2014	5/01/2014		CMB
Manganese: SW846-6010B	7439-96-5	<2.1	2.1	mg/kg	4/28/2014	5/01/2014		CMB
Mercury: SW846-7471B	7439-97-6	<0.093	0.093	mg/kg	4/29/2014	4/29/2014		CMB
Nickel: SW846-6010B	7440-02-0	<1.1	1.1	mg/kg	4/28/2014	5/01/2014		CMB
Potassium: SW846-6010B	7440-09-7	<110	110	mg/kg	4/28/2014	5/01/2014		CMB
Selenium: SW846-6010B	7782-49-2	<11	11	mg/kg	4/28/2014	5/01/2014		CMB
Silver: SW846-6010B	7440-22-4	<2.1	2.1	mg/kg	4/28/2014	5/01/2014		CMB
Sodium: SW846-6010B	7440-23-5	200	110	mg/kg	4/28/2014	5/01/2014		CMB
Thallium: SW846-6010B	7440-28-0	<4.2	4.2	mg/kg	4/28/2014	5/01/2014		CMB
Vanadium: SW846-6010B	7440-62-2	<11	11	mg/kg	4/28/2014	5/01/2014		CMB
Zinc: SW846-6010B	7440-66-6	13.1	4.2	mg/kg	4/28/2014	5/01/2014		CMB
Flashpoint: ASTM D93		140		degrees F			5/05/2014	REF
Corrosivity: SW846-9045C		6.6		pH units	5/02/2014	5/02/2014		SLD



EAG Workorder: 1404-00451

Client Project: Baker Perkins SA

Client ID: BP-LIQ-03

Date/Time Sampled: 4/23/2014 / 1045

Received: 4/25/2014

EAG ID: 1404-00451-3

Parameter	CAS #	Result	Reporting Limit	Units	Prep Date	Date	Time	Analyst
Aluminum: SW846-6010B	7429-90-5	<100	100	mg/kg	4/28/2014	5/01/2014		CMB
Antimony: SW846-6010B	7440-36-0	<8.1	8.1	mg/kg	4/28/2014	5/01/2014		CMB
Arsenic: SW846-6010B	7440-38-2	<4.1	4.1	mg/kg	4/28/2014	5/01/2014		CMB
Barium: SW846-6010B	7440-39-3	<2.0	2.0	mg/kg	4/28/2014	5/01/2014		CMB
Beryllium: SW846-6010B	7440-41-7	<1.0	1.0	mg/kg	4/28/2014	5/01/2014		CMB
Cadmium: SW846-6010B	7440-43-9	<1.0	1.0	mg/kg	4/28/2014	5/01/2014		CMB
Calcium: SW846-6010B	7440-70-2	<100	100	mg/kg	4/28/2014	5/01/2014		CMB
Chromium: SW846-6010B	7440-47-3	<2.0	2.0	mg/kg	4/28/2014	5/01/2014		CMB
Cobalt: SW846-6010B	7440-48-4	<2.0	2.0	mg/kg	4/28/2014	5/01/2014		CMB
Copper: SW846-6010B	7440-50-8	<10	10	mg/kg	4/28/2014	5/01/2014		CMB
Iron: SW846-6010B	7439-89-6	<20	20	mg/kg	4/28/2014	5/01/2014		CMB
Lead: SW846-6010B	7439-92-1	<4.1	4.1	mg/kg	4/28/2014	5/01/2014		CMB
Magnesium: SW846-6010B	7439-95-4	<100	100	mg/kg	4/28/2014	5/01/2014		CMB
Manganese: SW846-6010B	7439-96-5	<2.0	2.0	mg/kg	4/28/2014	5/01/2014		CMB
Mercury: SW846-7471B	7439-97-6	<0.070	0.070	mg/kg	4/29/2014	4/29/2014		CMB
Nickel: SW846-6010B	7440-02-0	<1.0	1.0	mg/kg	4/28/2014	5/01/2014		CMB
Potassium: SW846-6010B	7440-09-7	<100	100	mg/kg	4/28/2014	5/01/2014		CMB
Selenium: SW846-6010B	7782-49-2	<10	10	mg/kg	4/28/2014	5/01/2014		CMB
Silver: SW846-6010B	7440-22-4	<2.0	2.0	mg/kg	4/28/2014	5/01/2014		CMB
Sodium: SW846-6010B	7440-23-5	207	100	mg/kg	4/28/2014	5/01/2014		CMB
Thallium: SW846-6010B	7440-28-0	<4.1	4.1	mg/kg	4/28/2014	5/01/2014		CMB
Vanadium: SW846-6010B	7440-62-2	<10	10	mg/kg	4/28/2014	5/01/2014		CMB
Zinc: SW846-6010B	7440-66-6	13.8	4.1	mg/kg	4/28/2014	5/01/2014		CMB
Flashpoint: ASTM D93		>200		degrees F			5/05/2014	REF
Corrosivity: SW846-9045C		7.2		pH units	5/02/2014	5/02/2014		SLD

EAG Workorder 1404-00451

EAG ID: 1404-00451-001

Client ID: BP-LIQ-01

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 0950

Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Semi-volatile Organic Compounds: SW846-8270C					
Acenaphthene	83-32-9	<440000	440000	ug/kg	4/30/2014
Acenaphthylene	208-96-8	<440000	440000	ug/kg	4/30/2014
Anthracene	120-12-7	<440000	440000	ug/kg	4/30/2014
Benzo(a)Anthracene	56-55-3	<440000	440000	ug/kg	4/30/2014
Benzo(a)pyrene	50-32-8	<440000	440000	ug/kg	4/30/2014
Benzo(b)fluoranthene	205-99-2	<440000	440000	ug/kg	4/30/2014
Benzo(g,h,i)perylene	191-24-2	<440000	440000	ug/kg	4/30/2014
Benzo(k)fluoranthene	207-08-9	<440000	440000	ug/kg	4/30/2014
bis(2-chloroethoxy)methane	111-91-1	<440000	440000	ug/kg	4/30/2014
bis(2-chloroethyl)ether	111-44-4	<440000	440000	ug/kg	4/30/2014
bis(2-chloroisopropyl)ether	108-60-1	<440000	440000	ug/kg	4/30/2014
bis(2-Ethylhexyl)phthalate	117-81-7	<440000	440000	ug/kg	4/30/2014
4-Bromo(phenylphenyl)ether	101-55-3	<440000	440000	ug/kg	4/30/2014
Butyl benzyl phthalate	85-68-7	<440000	440000	ug/kg	4/30/2014
Carbazole	86-74-8	<440000	440000	ug/kg	4/30/2014
4-Chloroaniline	106-47-8	<440000	440000	ug/kg	4/30/2014
4-Chloro(phenylphenyl)ether	7005-72-3	<440000	440000	ug/kg	4/30/2014
2-Chloronaphthalene	91-58-7	<440000	440000	ug/kg	4/30/2014
Chrysene	218-01-9	<440000	440000	ug/kg	4/30/2014
Dibenz(a,h)anthracene	53-70-3	<440000	440000	ug/kg	4/30/2014
Dibenzofuran	132-64-9	<440000	440000	ug/kg	4/30/2014
Di-n-butyl Phthalate	84-74-2	<440000	440000	ug/kg	4/30/2014
1,2-Dichlorobenzene	95-50-1	<440000	440000	ug/kg	4/30/2014
1,3-Dichlorobenzene	541-73-1	<440000	440000	ug/kg	4/30/2014
1,4-Dichlorobenzene	106-46-7	<440000	440000	ug/kg	4/30/2014
3,3-Dichlorobenzidine	91-94-1	<880000	880000	ug/kg	4/30/2014
Diethyl phthalate	84-66-2	<440000	440000	ug/kg	4/30/2014
Dimethyl phthalate	131-11-3	<440000	440000	ug/kg	4/30/2014
2,6-Dinitrotoluene	606-20-2	<440000	440000	ug/kg	4/30/2014
2,4-Dinitrotoluene	121-14-2	<440000	440000	ug/kg	4/30/2014
Di-n-octylphthalate	117-84-0	<440000	440000	ug/kg	4/30/2014
Diphenylamine	122-39-4	<440000	440000	ug/kg	4/30/2014
1,2-Diphenylhydrazine	122-66-7	<2200000	2200000	ug/kg	4/30/2014
Fluoranthene	206-44-0	<440000	440000	ug/kg	4/30/2014
Fluorene	86-73-7	<440000	440000	ug/kg	4/30/2014
Hexachlorobenzene	118-74-1	<440000	440000	ug/kg	4/30/2014
Hexachlorobutadiene	87-68-3	<440000	440000	ug/kg	4/30/2014
Hexachlorocyclopentadiene	77-47-4	<440000	440000	ug/kg	4/30/2014
Hexachloroethane	67-72-1	<440000	440000	ug/kg	4/30/2014
Indeno(1,2,3-cd)pyrene	193-39-5	<440000	440000	ug/kg	4/30/2014
Isophorone	78-59-1	<440000	440000	ug/kg	4/30/2014



EAG Workorder 1404-00451

EAG ID: 1404-00451-001

Client ID: BP-LIQ-01

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 0950

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
2-Methylnaphthalene	91-57-6	<440000	440000	ug/kg	4/30/2014
Naphthalene	91-20-3	<440000	440000	ug/kg	4/30/2014
2-Nitroaniline	88-74-4	<440000	440000	ug/kg	4/30/2014
3-Nitroaniline	99-09-2	<440000	440000	ug/kg	4/30/2014
4-Nitroaniline	100-01-6	<440000	440000	ug/kg	4/30/2014
Nitrobenzene	98-95-3	<440000	440000	ug/kg	4/30/2014
N-Nitrosodi-n-propylamine	621-64-7	<440000	440000	ug/kg	4/30/2014
N-Nitrosodiphenylamine	86-30-6	<440000	440000	ug/kg	4/30/2014
Phenanthrene	85-01-8	<440000	440000	ug/kg	4/30/2014
Pyrene	129-00-0	<440000	440000	ug/kg	4/30/2014
1,2,4-Trichlorobenzene	120-82-1	<440000	440000	ug/kg	4/30/2014
4-Chloro-3-methylphenol	59-50-7	<440000	440000	ug/kg	4/30/2014
2-Chlorophenol	95-57-8	<440000	440000	ug/kg	4/30/2014
o-Cresol	95-48-7	<440000	440000	ug/kg	4/30/2014
m-Cresol**	108-39-4	<440000	440000	ug/kg	4/30/2014
p-Cresol**	106-44-5	<440000	440000	ug/kg	4/30/2014
2,4-Dichlorophenol	120-83-2	<440000	440000	ug/kg	4/30/2014
2,4-Dimethylphenol	105-67-9	<440000	440000	ug/kg	4/30/2014
2,4-Dinitrophenol	51-28-5	<2200000	2200000	ug/kg	4/30/2014
4,6-Dinitro-2-methylphenol	534-52-1	<2200000	2200000	ug/kg	4/30/2014
2-Nitrophenol	88-75-5	<440000	440000	ug/kg	4/30/2014
4-Nitrophenol	100-02-7	<2200000	2200000	ug/kg	4/30/2014
N-Nitrosodimethylamine	62-75-9	<440000	440000	ug/kg	4/30/2014
Pentachlorophenol	87-86-5	<2200000	2200000	ug/kg	4/30/2014
Phenol	108-95-2	<440000	440000	ug/kg	4/30/2014
2,4,5-Trichlorophenol	95-95-4	<440000	440000	ug/kg	4/30/2014
2,4,6-Trichlorophenol	88-06-2	<440000	440000	ug/kg	4/30/2014
Extraction: SW846-3550A		Complete			4/28/2014

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Recovery Limits</u>
Nitrobenzene-d5	92.5	(56 - 105)
2-Fluorobiphenyl	94.9	(53 - 115)
p-Terphenyl-d14	100	(52 - 140)
2-Fluorophenol	99.6	(41 - 101)
Phenol-d6	95.8	(46 - 108)
2,4,6-Tribromophenol	72.0	(43 - 142)



EAG Workorder 1404-00451

EAG ID: 1404-00451-001

Client ID: BP-LIQ-01

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 0950

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Total Petroleum Hydrocarbons: SW846-8015M					
Extractable Petroleum Hydrocarbons: C10-C20		<360000	360000	mg/kg	4/30/2014
Extractable Petroleum Hydrocarbons: C20-C34		1100000	360000	mg/kg	4/30/2014
Extraction: SW846-3550A		Complete			4/29/2014
<u>Surrogate</u>			<u>Percent Recovery</u>	<u>Recovery Limits</u>	
n-Triacontane			MI	(35 - 138)	



EAG Workorder 1404-00451
EAG ID: 1404-00451-001
Client ID: BP-LIQ-01
Client Project: Baker Perkins SA

Matrix: Oil
Analyst: CMW

Date Sampled: 04/23/2014
Time Sampled: 0950
Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A					
Acetone	67-64-1	<76000	76000	ug/kg	5/01/2014
Acrolein	107-02-8	<38000	38000	ug/kg	5/01/2014
Acrylonitrile	107-13-1	<38000	38000	ug/kg	5/01/2014
Benzene	71-43-2	<7600	7600	ug/kg	5/01/2014
Bromochloromethane	74-97-5	<7600	7600	ug/kg	5/01/2014
Bromodichloromethane	75-27-4	<7600	7600	ug/kg	5/01/2014
Bromoform	75-25-2	<7600	7600	ug/kg	5/01/2014
Bromomethane	74-83-9	<7600	7600	ug/kg	5/01/2014
Carbon disulfide	75-15-0	<7600	7600	ug/kg	5/01/2014
Carbon Tetrachloride	56-23-5	<7600	7600	ug/kg	5/01/2014
Chlorobenzene	108-90-7	<7600	7600	ug/kg	5/01/2014
Chloroethane	75-00-3	<7600	7600	ug/kg	5/01/2014
Chloroform	67-66-3	<7600	7600	ug/kg	5/01/2014
Chloromethane	74-87-3	<7600	7600	ug/kg	5/01/2014
Dibromochloromethane	124-48-1	<7600	7600	ug/kg	5/01/2014
1,1-Dichloroethane	75-34-3	<7600	7600	ug/kg	5/01/2014
1,2-Dichloroethane	107-06-2	<7600	7600	ug/kg	5/01/2014
1,1-Dichloroethene	75-35-4	<7600	7600	ug/kg	5/01/2014
1,2-Dichloropropane	78-87-5	<7600	7600	ug/kg	5/01/2014
cis-1,2-Dichloroethene	156-59-2	<7600	7600	ug/kg	5/01/2014
trans-1,2-Dichloroethene	156-60-5	<7600	7600	ug/kg	5/01/2014
cis-1,3-Dichloropropene	10061-01-5	<7600	7600	ug/kg	5/01/2014
trans-1,3-Dichloropropene	10061-02-6	<7600	7600	ug/kg	5/01/2014
Ethylbenzene	100-41-4	<7600	7600	ug/kg	5/01/2014
2-Hexanone (MBK)	591-78-6	<38000	38000	ug/kg	5/01/2014
n-Hexane	110-54-3	<76000	76000	ug/kg	5/01/2014
Methylene Chloride	75-09-2	<38000	38000	ug/kg	5/01/2014
Methyl Ethyl Ketone (2-butanone)	78-93-3	<38000	38000	ug/kg	5/01/2014
Methyl Methacrylate	80-62-6	<7600	7600	ug/kg	5/01/2014
4-Methyl-2-Pentanone	108-10-1	<38000	38000	ug/kg	5/01/2014
Methyl Tert-Butyl Ether	1634-04-4	<7600	7600	ug/kg	5/01/2014
2-Nitropropane	79-46-9	<7600	7600	ug/kg	5/01/2014
Pentachloroethane	76-01-7	<7600	7600	ug/kg	5/01/2014
Propionitrile	107-12-0	<7600	7600	ug/kg	5/01/2014
Styrene	100-42-5	<7600	7600	ug/kg	5/01/2014
1,1,1,2-Tetrachloroethane	630-20-6	<7600	7600	ug/kg	5/01/2014
1,1,2,2-Tetrachloroethane	79-34-5	<7600	7600	ug/kg	5/01/2014
Tetrachloroethene (Tetrachloroethylene)	127-18-4	<7600	7600	ug/kg	5/01/2014
Toluene	108-88-3	<7600	7600	ug/kg	5/01/2014
1,2,4-Trichlorobenzene	120-82-1	<7600	7600	ug/kg	5/01/2014
1,1,1-Trichloroethane	71-55-6	<7600	7600	ug/kg	5/01/2014



EAG Workorder 1404-00451

EAG ID: 1404-00451-001

Client ID: BP-LIQ-01

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: CMW

Date Sampled: 04/23/2014

Time Sampled: 0950

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
1,1,2-Trichloroethane	79-00-5	<7600	7600	ug/kg	5/01/2014
Trichloroethene (Trichloroethylene)	79-01-6	<7600	7600	ug/kg	5/01/2014
Trichlorofluoromethane	75-69-4	<7600	7600	ug/kg	5/01/2014
1,2,3-Trichloropropane	96-18-4	<7600	7600	ug/kg	5/01/2014
1,1,2 Trichlorotrifluoroethane	76-13-1	<7600	7600	ug/kg	5/01/2014
1,2,4-Trimethylbenzene	95-63-6	<7600	7600	ug/kg	5/01/2014
Vinyl Acetate	108-05-4	<7600	7600	ug/kg	5/01/2014
Vinyl Chloride	75-01-4	<7600	7600	ug/kg	5/01/2014
Xylenes (Total)	1330-20-7	<23000	23000	ug/kg	5/01/2014
<u>Surrogate</u>		<u>Percent Recovery</u>		<u>Recovery Limits</u>	
4-Bromofluorobenzene		103		(79 - 126)	
1,2-Dichloroethane-d4		102		(68 - 158)	
Toluene-d8		97.2		(76 - 129)	



EAG Workorder 1404-00451

EAG ID: 1404-00451-001

Client ID: BP-LIQ-01

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0950

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<1.0	1.0	mg/kg	4/29/2014
Extraction: SW846-3580		Complete			4/29/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

<u>Percent Recovery</u>	<u>Recovery Limits</u>
80.6	(59 - 121)
53.0	(56 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-001

Client ID: BP-LIQ-01

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0950

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Gasoline Range Organics: SW846-8015M		<770	770	mg/kg	4/30/2014
Gasoline Range Organics: C6-C12					
<u>Surrogate</u>		<u>Percent Recovery</u>		<u>Recovery Limits</u>	
Cumene		86.0		(72 - 126)	

EAG Workorder 1404-00451

EAG ID: 1404-00451-002

Client ID: BP-LIQ-02

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 1005

Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Semi-volatile Organic Compounds: SW846-8270C					
Acenaphthene	83-32-9	760000	480000	ug/kg	4/30/2014
Acenaphthylene	208-96-8	<480000	480000	ug/kg	4/30/2014
Anthracene	120-12-7	<480000	480000	ug/kg	4/30/2014
Benzo(a)Anthracene	56-55-3	<480000	480000	ug/kg	4/30/2014
Benzo(a)pyrene	50-32-8	<480000	480000	ug/kg	4/30/2014
Benzo(b)fluoranthene	205-99-2	<480000	480000	ug/kg	4/30/2014
Benzo(g,h,i)perylene	191-24-2	<480000	480000	ug/kg	4/30/2014
Benzo(k)fluoranthene	207-08-9	<480000	480000	ug/kg	4/30/2014
bis(2-chloroethoxy)methane	111-91-1	<480000	480000	ug/kg	4/30/2014
bis(2-chloroethyl)ether	111-44-4	<480000	480000	ug/kg	4/30/2014
bis(2-chloroisopropyl)ether	108-60-1	<480000	480000	ug/kg	4/30/2014
bis(2-Ethylhexyl)phthalate	117-81-7	<480000	480000	ug/kg	4/30/2014
4-Bromo(phenylphenyl)ether	101-55-3	<480000	480000	ug/kg	4/30/2014
Butyl benzyl phthalate	85-68-7	<480000	480000	ug/kg	4/30/2014
Carbazole	86-74-8	<480000	480000	ug/kg	4/30/2014
4-Chloroaniline	106-47-8	1900000	480000	ug/kg	4/30/2014
4-Chloro(phenylphenyl)ether	7005-72-3	<480000	480000	ug/kg	4/30/2014
2-Chloronaphthalene	91-58-7	<480000	480000	ug/kg	4/30/2014
Chrysene	218-01-9	<480000	480000	ug/kg	4/30/2014
Dibenz(a,h)anthracene	53-70-3	<480000	480000	ug/kg	4/30/2014
Dibenzofuran	132-64-9	<480000	480000	ug/kg	4/30/2014
Di-n-butyl Phthalate	84-74-2	<480000	480000	ug/kg	4/30/2014
1,2-Dichlorobenzene	95-50-1	<480000	480000	ug/kg	4/30/2014
1,3-Dichlorobenzene	541-73-1	<480000	480000	ug/kg	4/30/2014
1,4-Dichlorobenzene	106-46-7	<480000	480000	ug/kg	4/30/2014
3,3-Dichlorobenzidine	91-94-1	<960000	960000	ug/kg	4/30/2014
Diethyl phthalate	84-66-2	<480000	480000	ug/kg	4/30/2014
Dimethyl phthalate	131-11-3	<480000	480000	ug/kg	4/30/2014
2,6-Dinitrotoluene	606-20-2	<480000	480000	ug/kg	4/30/2014
2,4-Dinitrotoluene	121-14-2	<480000	480000	ug/kg	4/30/2014
Di-n-octylphthalate	117-84-0	<480000	480000	ug/kg	4/30/2014
Diphenylamine	122-39-4	<480000	480000	ug/kg	4/30/2014
1,2-Diphenylhydrazine	122-66-7	<2400000	2400000	ug/kg	4/30/2014
Fluoranthene	206-44-0	<480000	480000	ug/kg	4/30/2014
Fluorene	86-73-7	840000	480000	ug/kg	4/30/2014
Hexachlorobenzene	118-74-1	<480000	480000	ug/kg	4/30/2014
Hexachlorobutadiene	87-68-3	<480000	480000	ug/kg	4/30/2014
Hexachlorocyclopentadiene	77-47-4	<480000	480000	ug/kg	4/30/2014
Hexachloroethane	67-72-1	<480000	480000	ug/kg	4/30/2014
Indeno(1,2,3-cd)pyrene	193-39-5	<480000	480000	ug/kg	4/30/2014
Isophorone	78-59-1	<480000	480000	ug/kg	4/30/2014

EAG Workorder 1404-00451

EAG ID: 1404-00451-002

Client ID: BP-LIQ-02

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 1005

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
2-Methylnaphthalene	91-57-6	7600000	480000	ug/kg	4/30/2014
Naphthalene	91-20-3	1900000	480000	ug/kg	4/30/2014
2-Nitroaniline	88-74-4	<480000	480000	ug/kg	4/30/2014
3-Nitroaniline	99-09-2	<480000	480000	ug/kg	4/30/2014
4-Nitroaniline	100-01-6	<480000	480000	ug/kg	4/30/2014
Nitrobenzene	98-95-3	<480000	480000	ug/kg	4/30/2014
N-Nitrosodi-n-propylamine	621-64-7	<480000	480000	ug/kg	4/30/2014
N-Nitrosodiphenylamine	86-30-6	<480000	480000	ug/kg	4/30/2014
Phenanthrene	85-01-8	1200000	480000	ug/kg	4/30/2014
Pyrene	129-00-0	<480000	480000	ug/kg	4/30/2014
1,2,4-Trichlorobenzene	120-82-1	<480000	480000	ug/kg	4/30/2014
4-Chloro-3-methylphenol	59-50-7	<480000	480000	ug/kg	4/30/2014
2-Chlorophenol	95-57-8	<480000	480000	ug/kg	4/30/2014
o-Cresol	95-48-7	<480000	480000	ug/kg	4/30/2014
m-Cresol**	108-39-4	<480000	480000	ug/kg	4/30/2014
p-Cresol**	106-44-5	<480000	480000	ug/kg	4/30/2014
2,4-Dichlorophenol	120-83-2	<480000	480000	ug/kg	4/30/2014
2,4-Dimethylphenol	105-67-9	<480000	480000	ug/kg	4/30/2014
2,4-Dinitrophenol	51-28-5	<2400000	2400000	ug/kg	4/30/2014
4,6-Dinitro-2-methylphenol	534-52-1	<2400000	2400000	ug/kg	4/30/2014
2-Nitrophenol	88-75-5	<480000	480000	ug/kg	4/30/2014
4-Nitrophenol	100-02-7	<2400000	2400000	ug/kg	4/30/2014
N-Nitrosodimethylamine	62-75-9	<480000	480000	ug/kg	4/30/2014
Pentachlorophenol	87-86-5	<2400000	2400000	ug/kg	4/30/2014
Phenol	108-95-2	<480000	480000	ug/kg	4/30/2014
2,4,5-Trichlorophenol	95-95-4	<480000	480000	ug/kg	4/30/2014
2,4,6-Trichlorophenol	88-06-2	<480000	480000	ug/kg	4/30/2014
Extraction: SW846-3550A		Complete			4/28/2014

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Recovery Limits</u>
Nitrobenzene-d5	130	(56 - 105)
2-Fluorobiphenyl	97.2	(53 - 115)
p-Terphenyl-d14	105	(52 - 140)
2-Fluorophenol	109	(41 - 101)
Phenol-d6	133	(46 - 108)
2,4,6-Tribromophenol	64.9	(43 - 142)



EAG Workorder 1404-00451

EAG ID: 1404-00451-002

Client ID: BP-LIQ-02

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 1005

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Total Petroleum Hydrocarbons: SW846-8015M					
Extractable Petroleum Hydrocarbons: C10-C20		910000	380000	mg/kg	4/30/2014
Extractable Petroleum Hydrocarbons: C20-C34		<380000	380000	mg/kg	4/30/2014
Extraction: SW846-3550A		Complete			4/29/2014
<u>Surrogate</u>			<u>Percent Recovery</u>	<u>Recovery Limits</u>	
n-Triacontane			66.1	(35 - 138)	



EAG Workorder 1404-00451
EAG ID: 1404-00451-002
Client ID: BP-LIQ-02
Client Project: Baker Perkins SA

Matrix: Oil
Analyst: CMW

Date Sampled: 04/23/2014
Time Sampled: 1005
Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A					
Acetone	67-64-1	<79000	79000	ug/kg	5/01/2014
Acrolein	107-02-8	<40000	40000	ug/kg	5/01/2014
Acrylonitrile	107-13-1	<40000	40000	ug/kg	5/01/2014
Benzene	71-43-2	37000	7900	ug/kg	5/01/2014
Bromochloromethane	74-97-5	<7900	7900	ug/kg	5/01/2014
Bromodichloromethane	75-27-4	<7900	7900	ug/kg	5/01/2014
Bromoform	75-25-2	<7900	7900	ug/kg	5/01/2014
Bromomethane	74-83-9	<7900	7900	ug/kg	5/01/2014
Carbon disulfide	75-15-0	<7900	7900	ug/kg	5/01/2014
Carbon Tetrachloride	56-23-5	<7900	7900	ug/kg	5/01/2014
Chlorobenzene	108-90-7	<7900	7900	ug/kg	5/01/2014
Chloroethane	75-00-3	<7900	7900	ug/kg	5/01/2014
Chloroform	67-66-3	<7900	7900	ug/kg	5/01/2014
Chloromethane	74-87-3	<7900	7900	ug/kg	5/01/2014
Dibromochloromethane	124-48-1	<7900	7900	ug/kg	5/01/2014
1,1-Dichloroethane	75-34-3	<7900	7900	ug/kg	5/01/2014
1,2-Dichloroethane	107-06-2	<7900	7900	ug/kg	5/01/2014
1,1-Dichloroethene	75-35-4	<7900	7900	ug/kg	5/01/2014
1,2-Dichloropropane	78-87-5	<7900	7900	ug/kg	5/01/2014
cis-1,2-Dichloroethene	156-59-2	<7900	7900	ug/kg	5/01/2014
trans-1,2-Dichloroethene	156-60-5	<7900	7900	ug/kg	5/01/2014
cis-1,3-Dichloropropene	10061-01-5	<7900	7900	ug/kg	5/01/2014
trans-1,3-Dichloropropene	10061-02-6	<7900	7900	ug/kg	5/01/2014
Ethylbenzene	100-41-4	590000	7900	ug/kg	5/01/2014
2-Hexanone (MBK)	591-78-6	<40000	40000	ug/kg	5/01/2014
n-Hexane	110-54-3	<79000	79000	ug/kg	5/01/2014
Methylene Chloride	75-09-2	<40000	40000	ug/kg	5/01/2014
Methyl Ethyl Ketone (2-butanone)	78-93-3	<40000	40000	ug/kg	5/01/2014
Methyl Methacrylate	80-62-6	<7900	7900	ug/kg	5/01/2014
4-Methyl-2-Pentanone	108-10-1	<40000	40000	ug/kg	5/01/2014
Methyl Tert-Butyl Ether	1634-04-4	<7900	7900	ug/kg	5/01/2014
2-Nitropropane	79-46-9	<7900	7900	ug/kg	5/01/2014
Pentachloroethane	76-01-7	<7900	7900	ug/kg	5/01/2014
Propionitrile	107-12-0	<7900	7900	ug/kg	5/01/2014
Styrene	100-42-5	<7900	7900	ug/kg	5/01/2014
1,1,1,2-Tetrachloroethane	630-20-6	<7900	7900	ug/kg	5/01/2014
1,1,2,2-Tetrachloroethane	79-34-5	<7900	7900	ug/kg	5/01/2014
Tetrachloroethene (Tetrachloroethylene)	127-18-4	<7900	7900	ug/kg	5/01/2014
Toluene	108-88-3	540000	7900	ug/kg	5/01/2014
1,2,4-Trichlorobenzene	120-82-1	<7900	7900	ug/kg	5/01/2014
1,1,1-Trichloroethane	71-55-6	<7900	7900	ug/kg	5/01/2014



EAG Workorder 1404-00451

EAG ID: 1404-00451-002

Client ID: BP-LIQ-02

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: CMW

Date Sampled: 04/23/2014

Time Sampled: 1005

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
1,1,2-Trichloroethane	79-00-5	<7900	7900	ug/kg	5/01/2014
Trichloroethene (Trichloroethylene)	79-01-6	<7900	7900	ug/kg	5/01/2014
Trichlorofluoromethane	75-69-4	<7900	7900	ug/kg	5/01/2014
1,2,3-Trichloropropane	96-18-4	<7900	7900	ug/kg	5/01/2014
1,1,2 Trichlorotrifluoroethane	76-13-1	<7900	7900	ug/kg	5/01/2014
1,2,4-Trimethylbenzene	95-63-6	2800000	79000	ug/kg	5/01/2014
Vinyl Acetate	108-05-4	<7900	7900	ug/kg	5/01/2014
Vinyl Chloride	75-01-4	<7900	7900	ug/kg	5/01/2014
Xylenes (Total)	1330-20-7	2200000	240000	ug/kg	5/01/2014
<u>Surrogate</u>		<u>Percent Recovery</u>		<u>Recovery Limits</u>	
4-Bromofluorobenzene		113		(79 - 126)	
1,2-Dichloroethane-d4		102		(68 - 158)	
Toluene-d8		111		(76 - 129)	



EAG Workorder 1404-00451

EAG ID: 1404-00451-002

Client ID: BP-LIQ-02

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 1005

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<1.0	1.0	mg/kg	4/29/2014
Extraction: SW846-3580		Complete			4/29/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

<u>Percent Recovery</u>	<u>Recovery Limits</u>
65.2	(59 - 121)
58.6	(56 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-002

Client ID: BP-LIQ-02

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 1005

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Gasoline Range Organics: SW846-8015M					
Gasoline Range Organics: C6-C12		99000	8600	mg/kg	4/30/2014
<u>Surrogate</u>		<u>Percent Recovery</u>	<u>Recovery Limits</u>		
Cumene		MI	(72 - 126)		



EAG Workorder 1404-00451

EAG ID: 1404-00451-003

Client ID: BP-LIQ-03

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 1045

Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Semi-volatile Organic Compounds: SW846-8270C					
Acenaphthene	83-32-9	<500000	500000	ug/kg	4/30/2014
Acenaphthylene	208-96-8	<500000	500000	ug/kg	4/30/2014
Anthracene	120-12-7	<500000	500000	ug/kg	4/30/2014
Benzo(a)Anthracene	56-55-3	<500000	500000	ug/kg	4/30/2014
Benzo(a)pyrene	50-32-8	<500000	500000	ug/kg	4/30/2014
Benzo(b)fluoranthene	205-99-2	<500000	500000	ug/kg	4/30/2014
Benzo(g,h,i)perylene	191-24-2	<500000	500000	ug/kg	4/30/2014
Benzo(k)fluoranthene	207-08-9	<500000	500000	ug/kg	4/30/2014
bis(2-chloroethoxy)methane	111-91-1	<500000	500000	ug/kg	4/30/2014
bis(2-chloroethyl)ether	111-44-4	<500000	500000	ug/kg	4/30/2014
bis(2-chloroisopropyl)ether	108-60-1	<500000	500000	ug/kg	4/30/2014
bis(2-Ethylhexyl)phthalate	117-81-7	<500000	500000	ug/kg	4/30/2014
4-Bromo(phenylphenyl)ether	101-55-3	<500000	500000	ug/kg	4/30/2014
Butyl benzyl phthalate	85-68-7	<500000	500000	ug/kg	4/30/2014
Carbazole	86-74-8	<500000	500000	ug/kg	4/30/2014
4-Chloroaniline	106-47-8	<500000	500000	ug/kg	4/30/2014
4-Chloro(phenylphenyl)ether	7005-72-3	<500000	500000	ug/kg	4/30/2014
2-Chloronaphthalene	91-58-7	<500000	500000	ug/kg	4/30/2014
Chrysene	218-01-9	<500000	500000	ug/kg	4/30/2014
Dibenz(a,h)anthracene	53-70-3	<500000	500000	ug/kg	4/30/2014
Dibenzofuran	132-64-9	<500000	500000	ug/kg	4/30/2014
Di-n-butyl Phthalate	84-74-2	<500000	500000	ug/kg	4/30/2014
1,2-Dichlorobenzene	95-50-1	<500000	500000	ug/kg	4/30/2014
1,3-Dichlorobenzene	541-73-1	<500000	500000	ug/kg	4/30/2014
1,4-Dichlorobenzene	106-46-7	<500000	500000	ug/kg	4/30/2014
3,3-Dichlorobenzidine	91-94-1	<1000000	1000000	ug/kg	4/30/2014
Diethyl phthalate	84-66-2	<500000	500000	ug/kg	4/30/2014
Dimethyl phthalate	131-11-3	<500000	500000	ug/kg	4/30/2014
2,6-Dinitrotoluene	606-20-2	<500000	500000	ug/kg	4/30/2014
2,4-Dinitrotoluene	121-14-2	<500000	500000	ug/kg	4/30/2014
Di-n-octylphthalate	117-84-0	<500000	500000	ug/kg	4/30/2014
Diphenylamine	122-39-4	<500000	500000	ug/kg	4/30/2014
1,2-Diphenylhydrazine	122-66-7	<2500000	2500000	ug/kg	4/30/2014
Fluoranthene	206-44-0	<500000	500000	ug/kg	4/30/2014
Fluorene	86-73-7	<500000	500000	ug/kg	4/30/2014
Hexachlorobenzene	118-74-1	<500000	500000	ug/kg	4/30/2014
Hexachlorobutadiene	87-68-3	<500000	500000	ug/kg	4/30/2014
Hexachlorocyclopentadiene	77-47-4	<500000	500000	ug/kg	4/30/2014
Hexachloroethane	67-72-1	<500000	500000	ug/kg	4/30/2014
Indeno(1,2,3-cd)pyrene	193-39-5	<500000	500000	ug/kg	4/30/2014
Isophorone	78-59-1	<500000	500000	ug/kg	4/30/2014



EAG Workorder 1404-00451

EAG ID: 1404-00451-003

Client ID: BP-LIQ-03

Client Project: Baker Perkins SA

Matrix: Oil
Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 1045

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
2-Methylnaphthalene	91-57-6	<500000	500000	ug/kg	4/30/2014
Naphthalene	91-20-3	<500000	500000	ug/kg	4/30/2014
2-Nitroaniline	88-74-4	<500000	500000	ug/kg	4/30/2014
3-Nitroaniline	99-09-2	<500000	500000	ug/kg	4/30/2014
4-Nitroaniline	100-01-6	<500000	500000	ug/kg	4/30/2014
Nitrobenzene	98-95-3	<500000	500000	ug/kg	4/30/2014
N-Nitrosodi-n-propylamine	621-64-7	<500000	500000	ug/kg	4/30/2014
N-Nitrosodiphenylamine	86-30-6	<500000	500000	ug/kg	4/30/2014
Phenanthrene	85-01-8	<500000	500000	ug/kg	4/30/2014
Pyrene	129-00-0	<500000	500000	ug/kg	4/30/2014
1,2,4-Trichlorobenzene	120-82-1	<500000	500000	ug/kg	4/30/2014
4-Chloro-3-methylphenol	59-50-7	<500000	500000	ug/kg	4/30/2014
2-Chlorophenol	95-57-8	<500000	500000	ug/kg	4/30/2014
o-Cresol	95-48-7	<500000	500000	ug/kg	4/30/2014
m-Cresol**	108-39-4	<500000	500000	ug/kg	4/30/2014
p-Cresol**	106-44-5	<500000	500000	ug/kg	4/30/2014
2,4-Dichlorophenol	120-83-2	<500000	500000	ug/kg	4/30/2014
2,4-Dimethylphenol	105-67-9	<500000	500000	ug/kg	4/30/2014
2,4-Dinitrophenol	51-28-5	<2500000	2500000	ug/kg	4/30/2014
4,6-Dinitro-2-methylphenol	534-52-1	<2500000	2500000	ug/kg	4/30/2014
2-Nitrophenol	88-75-5	<500000	500000	ug/kg	4/30/2014
4-Nitrophenol	100-02-7	<2500000	2500000	ug/kg	4/30/2014
N-Nitrosodimethylamine	62-75-9	<500000	500000	ug/kg	4/30/2014
Pentachlorophenol	87-86-5	<2500000	2500000	ug/kg	4/30/2014
Phenol	108-95-2	<500000	500000	ug/kg	4/30/2014
2,4,5-Trichlorophenol	95-95-4	<500000	500000	ug/kg	4/30/2014
2,4,6-Trichlorophenol	88-06-2	<500000	500000	ug/kg	4/30/2014
Extraction: SW846-3550A		Complete			4/28/2014

Surrogate

	<u>Percent Recovery</u>	<u>Recovery Limits</u>
Nitrobenzene-d5	93.0	(56 - 105)
2-Fluorobiphenyl	92.5	(53 - 115)
p-Terphenyl-d14	108	(52 - 140)
2-Fluorophenol	106	(41 - 101)
Phenol-d6	101	(46 - 108)
2,4,6-Tribromophenol	76.0	(43 - 142)



EAG Workorder 1404-00451

EAG ID: 1404-00451-003

Client ID: BP-LIQ-03

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: DFM

Date Sampled: 04/23/2014

Time Sampled: 1045

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Total Petroleum Hydrocarbons: SW846-8015M					
Extractable Petroleum Hydrocarbons: C10-C20		490000	86000	mg/kg	4/30/2014
Extractable Petroleum Hydrocarbons: C20-C34		500000	86000	mg/kg	4/30/2014
Extraction: SW846-3550A		Complete			4/29/2014
Surrogate		<u>Percent Recovery</u>		<u>Recovery Limits</u>	
n-Triacontane		71.4		(35 - 138)	



EAG Workorder 1404-00451
EAG ID: 1404-00451-003
Client ID: BP-LIQ-03
Client Project: Baker Perkins SA

Matrix: Oil
Analyst: CMW

Date Sampled: 04/23/2014
Time Sampled: 1045
Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Volatile Organic Compounds: SW846-8260A					
Acetone	67-64-1	<73000	73000	ug/kg	5/01/2014
Acrolein	107-02-8	<37000	37000	ug/kg	5/01/2014
Acrylonitrile	107-13-1	<37000	37000	ug/kg	5/01/2014
Benzene	71-43-2	<7300	7300	ug/kg	5/01/2014
Bromochloromethane	74-97-5	<7300	7300	ug/kg	5/01/2014
Bromodichloromethane	75-27-4	<7300	7300	ug/kg	5/01/2014
Bromoform	75-25-2	<7300	7300	ug/kg	5/01/2014
Bromomethane	74-83-9	<7300	7300	ug/kg	5/01/2014
Carbon disulfide	75-15-0	<7300	7300	ug/kg	5/01/2014
Carbon Tetrachloride	56-23-5	<7300	7300	ug/kg	5/01/2014
Chlorobenzene	108-90-7	<7300	7300	ug/kg	5/01/2014
Chloroethane	75-00-3	<7300	7300	ug/kg	5/01/2014
Chloroform	67-66-3	<7300	7300	ug/kg	5/01/2014
Chloromethane	74-87-3	<7300	7300	ug/kg	5/01/2014
Dibromochloromethane	124-48-1	<7300	7300	ug/kg	5/01/2014
1,1-Dichloroethane	75-34-3	<7300	7300	ug/kg	5/01/2014
1,2-Dichloroethane	107-06-2	<7300	7300	ug/kg	5/01/2014
1,1-Dichloroethene	75-35-4	<7300	7300	ug/kg	5/01/2014
1,2-Dichloropropane	78-87-5	<7300	7300	ug/kg	5/01/2014
cis-1,2-Dichloroethene	156-59-2	<7300	7300	ug/kg	5/01/2014
trans-1,2-Dichloroethene	156-60-5	<7300	7300	ug/kg	5/01/2014
cis-1,3-Dichloropropene	10061-01-5	<7300	7300	ug/kg	5/01/2014
trans-1,3-Dichloropropene	10061-02-6	<7300	7300	ug/kg	5/01/2014
Ethylbenzene	100-41-4	13000	7300	ug/kg	5/01/2014
2-Hexanone (MBK)	591-78-6	<37000	37000	ug/kg	5/01/2014
n-Hexane	110-54-3	<73000	73000	ug/kg	5/01/2014
Methylene Chloride	75-09-2	<37000	37000	ug/kg	5/01/2014
Methyl Ethyl Ketone (2-butanone)	78-93-3	<37000	37000	ug/kg	5/01/2014
Methyl Methacrylate	80-62-6	<7300	7300	ug/kg	5/01/2014
4-Methyl-2-Pentanone	108-10-1	<37000	37000	ug/kg	5/01/2014
Methyl Tert-Butyl Ether	1634-04-4	<7300	7300	ug/kg	5/01/2014
2-Nitropropane	79-46-9	<7300	7300	ug/kg	5/01/2014
Pentachloroethane	76-01-7	<7300	7300	ug/kg	5/01/2014
Propionitrile	107-12-0	<7300	7300	ug/kg	5/01/2014
Styrene	100-42-5	<7300	7300	ug/kg	5/01/2014
1,1,1,2-Tetrachloroethane	630-20-6	<7300	7300	ug/kg	5/01/2014
1,1,2,2-Tetrachloroethane	79-34-5	<7300	7300	ug/kg	5/01/2014
Tetrachloroethene (Tetrachloroethylene)	127-18-4	<7300	7300	ug/kg	5/01/2014
Toluene	108-88-3	12000	7300	ug/kg	5/01/2014
1,2,4-Trichlorobenzene	120-82-1	<7300	7300	ug/kg	5/01/2014
1,1,1-Trichloroethane	71-55-6	<7300	7300	ug/kg	5/01/2014



EAG Workorder 1404-00451

EAG ID: 1404-00451-003

Client ID: BP-LIQ-03

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: CMW

Date Sampled: 04/23/2014

Time Sampled: 1045

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
1,1,2-Trichloroethane	79-00-5	<7300	7300	ug/kg	5/01/2014
Trichloroethene (Trichloroethylene)	79-01-6	<7300	7300	ug/kg	5/01/2014
Trichlorofluoromethane	75-69-4	<7300	7300	ug/kg	5/01/2014
1,2,3-Trichloropropane	96-18-4	<7300	7300	ug/kg	5/01/2014
1,1,2 Trichlorotrifluoroethane	76-13-1	<7300	7300	ug/kg	5/01/2014
1,2,4-Trimethylbenzene	95-63-6	72000	7300	ug/kg	5/01/2014
Vinyl Acetate	108-05-4	<7300	7300	ug/kg	5/01/2014
Vinyl Chloride	75-01-4	<7300	7300	ug/kg	5/01/2014
Xylenes (Total)	1330-20-7	60000	22000	ug/kg	5/01/2014
<u>Surrogate</u>		<u>Percent Recovery</u>		<u>Recovery Limits</u>	
4-Bromofluorobenzene		102		(79 - 126)	
1,2-Dichloroethane-d4		101		(68 - 158)	
Toluene-d8		100		(76 - 129)	



EAG Workorder 1404-00451

EAG ID: 1404-00451-003

Client ID: BP-LIQ-03

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 1045

Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<1.0	1.0	mg/kg	4/29/2014
Extraction: SW846-3580		Complete			4/29/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

Percent Recovery

66.8

61.6

Recovery Limits

(59 - 121)

(56 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-003

Client ID: BP-LIQ-03

Client Project: Baker Perkins SA

Matrix: Oil

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 1045

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Gasoline Range Organics: SW846-8015M		<870	870	mg/kg	4/30/2014
Gasoline Range Organics: C6-C12					
<u>Surrogate</u>		<u>Percent Recovery</u>		<u>Recovery Limits</u>	
Cumene		88.9		(72 - 126)	



EAG Workorder 1404-00451

EAG ID: 1404-00451-004

Client ID: BP-WB-01

Client Project: Baker Perkins SA

Matrix: Solid

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0830

Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<0.17	0.17	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<0.17	0.17	mg/kg	4/29/2014
Extraction: SW846-3550A		Complete			4/28/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

Percent Recovery	Recovery Limits
112	(64 - 130)
69.8	(66 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-005

Client ID: BP-WB-02

Client Project: Baker Perkins SA

Matrix: Solid

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0845

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	1.1	0.14	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<3.5	3.5	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<3.5	3.5	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<3.5	3.5	mg/kg	4/29/2014
Extraction: SW846-3550A		Complete			4/28/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

<u>Percent Recovery</u>	<u>Recovery Limits</u>
102	(64 - 130)
84.4	(66 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-006

Client ID: BP-WB-03

Client Project: Baker Perkins SA

Matrix: Solid

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0855

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<10	10	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<10	10	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<10	10	mg/kg	4/29/2014
Extraction: SW846-3550A		Complete			4/28/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

Percent Recovery

89.0

MI

Recovery Limits

(64 - 130)

(66 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-007

Client ID: BP-WB-04

Client Project: Baker Perkins SA

Matrix: Solid

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0910

Date Received: 04/25/2014

Parameter	CAS #	Result	Reporting Limit	Units	Date Analyzed
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<0.40	0.40	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<0.40	0.40	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<0.40	0.40	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<0.40	0.40	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<0.40	0.40	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<1.2	1.2	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<1.2	1.2	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<1.2	1.2	mg/kg	4/29/2014
Extraction: SW846-3550A		Complete			4/28/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

Percent Recovery	Recovery Limits
79.6	(64 - 130)
57.6	(66 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-008

Client ID: BP-WB-05

Client Project: Baker Perkins SA

Matrix: Solid

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled: 0920

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<1.1	1.1	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<1.1	1.1	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<1.1	1.1	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<1.1	1.1	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	<1.1	1.1	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	15	1.1	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<1.1	1.1	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<1.1	1.1	mg/kg	4/29/2014
Extraction: SW846-3550A		Complete			4/28/2014

Surrogate

Tetrachloro-m-xylene

Decachlorobiphenyl

Percent Recovery
MI
112

Recovery Limits
(64 - 130)
(66 - 131)



EAG Workorder 1404-00451

EAG ID: 1404-00451-009

Client ID: BP-WB-DUP1

Client Project: Baker Perkins SA

Matrix: Solid

Analyst: JAH

Date Sampled: 04/23/2014

Time Sampled:

Date Received: 04/25/2014

<u>Parameter</u>	<u>CAS #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Polychlorinated Biphenyls: SW846-8082A					
Aroclor 1016	12674-11-2	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1221	11104-28-2	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1232	11141-16-5	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1242	53469-21-9	<0.14	0.14	mg/kg	4/29/2014
Aroclor 1248	12672-29-6	1.7	0.14	mg/kg	4/29/2014
Aroclor 1254	11097-69-1	<3.5	3.5	mg/kg	4/29/2014
Aroclor 1260	11096-82-5	<3.5	3.5	mg/kg	4/29/2014
Aroclor 1268	11100-14-4	<3.5	3.5	mg/kg	4/29/2014
Extraction: SW846-3550A		Complete			4/28/2014
Surrogate			<u>Percent Recovery</u>	<u>Recovery Limits</u>	
Tetrachloro-m-xylene			91.0	(64 - 130)	
Decachlorobiphenyl			MI	(66 - 131)	



Data Entry Batch Number Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

<u>EAG ID</u>	<u>Client ID</u>	<u>Parameter</u>	<u>Data Entry Batch</u>
001	BP-LIQ-01	Corrosivity: SW846-9045C Gasoline Range Organics: SW846-8015M Metals: SW846-6010B/7471B Polychlorinated Biphenyls: SW846-8082A Semi-volatile Organic Compounds: SW846-8270C Total Petroleum Hydrocarbons: SW846-8015M Volatile Organic Compounds: SW846-8260A	129184 129188 129161 129177 129136 129138 129165
002	BP-LIQ-02	Corrosivity: SW846-9045C Gasoline Range Organics: SW846-8015M Metals: SW846-6010B/7471B Polychlorinated Biphenyls: SW846-8082A Semi-volatile Organic Compounds: SW846-8270C Total Petroleum Hydrocarbons: SW846-8015M Volatile Organic Compounds: SW846-8260A	129184 129188 129161 129177 129136 129138 129165
003	BP-LIQ-03	Corrosivity: SW846-9045C Gasoline Range Organics: SW846-8015M Metals: SW846-6010B/7471B Polychlorinated Biphenyls: SW846-8082A Semi-volatile Organic Compounds: SW846-8270C Total Petroleum Hydrocarbons: SW846-8015M Volatile Organic Compounds: SW846-8260A	129184 129188 129161 129177 129136 129138 129165
004	BP-WB-01	Polychlorinated Biphenyls: SW846-8082A	129179
005	BP-WB-02	Polychlorinated Biphenyls: SW846-8082A	129179
006	BP-WB-03	Polychlorinated Biphenyls: SW846-8082A	129179
007	BP-WB-04	Polychlorinated Biphenyls: SW846-8082A	129179
008	BP-WB-05	Polychlorinated Biphenyls: SW846-8082A	129179
009	BP-WB-DUP1	Polychlorinated Biphenyls: SW846-8082A	129179



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129165

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Acetone	<1000	1000	ug/kg	4/30/2014
Acrolein	<500	500	ug/kg	4/30/2014
Acrylonitrile	<500	500	ug/kg	4/30/2014
Benzene	<100	100	ug/kg	4/30/2014
Bromochloromethane	<100	100	ug/kg	4/30/2014
Bromodichloromethane	<100	100	ug/kg	4/30/2014
Bromoform	<100	100	ug/kg	4/30/2014
Bromomethane	<100	100	ug/kg	4/30/2014
Carbon disulfide	<100	100	ug/kg	4/30/2014
Carbon Tetrachloride	<100	100	ug/kg	4/30/2014
Chlorobenzene	<100	100	ug/kg	4/30/2014
Chloroethane	<100	100	ug/kg	4/30/2014
Chloroform	<100	100	ug/kg	4/30/2014
Chloromethane	<100	100	ug/kg	4/30/2014
Dibromochloromethane	<100	100	ug/kg	4/30/2014
1,1-Dichloroethane	<100	100	ug/kg	4/30/2014
1,2-Dichloroethane	<100	100	ug/kg	4/30/2014
1,1-Dichloroethene	<100	100	ug/kg	4/30/2014
1,2-Dichloropropane	<100	100	ug/kg	4/30/2014
cis-1,2-Dichloroethene	<100	100	ug/kg	4/30/2014
trans-1,2-Dichloroethene	<100	100	ug/kg	4/30/2014
cis-1,3-Dichloropropene	<100	100	ug/kg	4/30/2014
trans-1,3-Dichloropropene	<100	100	ug/kg	4/30/2014
Ethylbenzene	<100	100	ug/kg	4/30/2014
2-Hexanone (MBK)	<500	500	ug/kg	4/30/2014
n-Hexane	<1000	1000	ug/kg	4/30/2014
Methylene Chloride	<500	500	ug/kg	4/30/2014
Methyl Ethyl Ketone (2-butanone)	<500	500	ug/kg	4/30/2014
Methyl Methacrylate	<100	100	ug/kg	4/30/2014
4-Methyl-2-Pentanone	<500	500	ug/kg	4/30/2014
Methyl Tert-Butyl Ether	<100	100	ug/kg	4/30/2014
2-Nitropropane	<100	100	ug/kg	4/30/2014
Pentachloroethane	<100	100	ug/kg	4/30/2014
Propionitrile	<100	100	ug/kg	4/30/2014
Styrene	<100	100	ug/kg	4/30/2014
1,1,1,2-Tetrachloroethane	<100	100	ug/kg	4/30/2014
1,1,2,2-Tetrachloroethane	<100	100	ug/kg	4/30/2014



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129165

Parameter	Result	Reporting Limit	Units	Date Analyzed
Tetrachloroethylene (Tetrachloroethylene)	<100	100	ug/kg	4/30/2014
Toluene	<100	100	ug/kg	4/30/2014
1,2,4-Trichlorobenzene	<100	100	ug/kg	4/30/2014
1,1,1-Trichloroethane	<100	100	ug/kg	4/30/2014
1,1,2-Trichloroethane	<100	100	ug/kg	4/30/2014
Trichloroethylene (Trichloroethylene)	<100	100	ug/kg	4/30/2014
Trichlorofluoromethane	<100	100	ug/kg	4/30/2014
1,2,3-Trichloropropane	<100	100	ug/kg	4/30/2014
1,1,2 Trichlorotrifluoroethane	<100	100	ug/kg	4/30/2014
1,2,4-Trimethylbenzene	<100	100	ug/kg	4/30/2014
Vinyl Acetate	<100	100	ug/kg	4/30/2014
Vinyl Chloride	<100	100	ug/kg	4/30/2014
Xylenes (Total)	<300	300	ug/kg	4/30/2014

Surrogate	Percent Recovery	Control Limits
1,2-Dichloroethane-d4	135.0	(68 - 158)
4-Bromofluorobenzene	128.0	(79 - 136)
Toluene-d8	122.0	(76 - 129)



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS/LCSD

Matrix: Oil

Data Entry Batch: 129165

<u>Parameter</u>	<u>Spike Percent</u>	<u>Spike Recovery</u>	<u>Control Limits</u>	<u>RPD Control</u>	<u>Date</u>
				<u>RPD Limits</u>	<u>Analyzed</u>
1,1-Dichloroethene	70.8	75.0	(45 - 133)	5.8	(0-20) 4/30/2014
Benzene	93.7	95.9	(64 - 136)	2.3	(0-20) 4/30/2014
Chlorobenzene	97.8	99.0	(73 - 129)	1.2	(0-20) 4/30/2014
n-Hexane	90.0	95.4	(21 - 166)	5.8	(0-20) 4/30/2014
Trichloroethylene (Trichloroethylene)	102.0	109.0	(68 - 126)	6.6	(0-20) 4/30/2014
Toluene	99.4	99.2	(69 - 127)	0.2	(0-20) 4/30/2014

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Percent Recovery</u>	<u>Control Limits</u>	<u>RPD Control</u>	<u>RPD Limits</u>
				<u>RPD Limits</u>	<u>RPD Limits</u>
1,2-Dichloroethane-d4	94.5	93.9	(68 - 158)	0.6	(0-20)
4-Bromofluorobenzene	90.6	84.0	(79 - 126)	7.6	(0-20)
Toluene-d8	89.7	98.8	(76 - 129)	9.7	(0-20)



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129188

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Gasoline Range Organics: C6-C12	<20	20	mg/kg	4/30/2014
<u>Surrogate</u>	<u>Percent Recovery</u>		<u>Control Limits</u>	
Cumene	91.6		(72 - 126)	



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS/LCSD

Matrix: Oil

Data Entry Batch: 129188

<u>Parameter</u>	<u>Spike Percent</u>	<u>Spike Recovery</u>	<u>Control Limits</u>	<u>RPD Control</u>	<u>RPD Limits</u>	<u>Date Analyzed</u>
Gasoline Range Organics: C6-C12	100.0	117.0	(65 - 124)	15.7	(0-20)	4/30/2014
<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Percent Recovery</u>	<u>Control Limits</u>	<u>RPD</u>	<u>RPD Control Limits</u>	
Cumene	106.0	96.0	(72 - 126)	9.9	(0-20)	



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129136

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Acenaphthene	<250	250	ug/kg	4/30/2014
Acenaphthylene	<250	250	ug/kg	4/30/2014
Anthracene	<250	250	ug/kg	4/30/2014
Benzo(a)Anthracene	<250	250	ug/kg	4/30/2014
Benzo(a)pyrene	<250	250	ug/kg	4/30/2014
Benzo(b)fluoranthene	<250	250	ug/kg	4/30/2014
Benzo(g,h,i)perylene	<250	250	ug/kg	4/30/2014
Benzo(k)fluoranthene	<250	250	ug/kg	4/30/2014
bis(2-chloroethoxy)methane	<250	250	ug/kg	4/30/2014
bis(2-chloroethyl)ether	<250	250	ug/kg	4/30/2014
bis(2-chloroisopropyl)ether	<250	250	ug/kg	4/30/2014
bis(2-Ethylhexyl)phthalate	<250	250	ug/kg	4/30/2014
4-Bromo(phenylphenyl)ether	<250	250	ug/kg	4/30/2014
Butyl benzyl phthalate	<250	250	ug/kg	4/30/2014
Carbazole	<250	250	ug/kg	4/30/2014
4-Chloroaniline	<250	250	ug/kg	4/30/2014
4-Chloro(phenylphenyl)ether	<250	250	ug/kg	4/30/2014
2-Chloronaphthalene	<250	250	ug/kg	4/30/2014
Chrysene	<250	250	ug/kg	4/30/2014
Dibenz(a,h)anthracene	<250	250	ug/kg	4/30/2014
Dibenzofuran	<250	250	ug/kg	4/30/2014
Di-n-butyl Phthalate	<250	250	ug/kg	4/30/2014
1,2-Dichlorobenzene	<250	250	ug/kg	4/30/2014
1,3-Dichlorobenzene	<250	250	ug/kg	4/30/2014
1,4-Dichlorobenzene	<250	250	ug/kg	4/30/2014
3,3-Dichlorobenzidine	<500	500	ug/kg	4/30/2014
Diethyl phthalate	<250	250	ug/kg	4/30/2014
Dimethyl phthalate	<250	250	ug/kg	4/30/2014
2,6-Dinitrotoluene	<250	250	ug/kg	4/30/2014
2,4-Dinitrotoluene	<250	250	ug/kg	4/30/2014
Di-n-octylphthalate	<250	250	ug/kg	4/30/2014
Diphenylamine	<250	250	ug/kg	4/30/2014
1,2-Diphenylhydrazine	<1300	1300	ug/kg	4/30/2014
Fluoranthene	<250	250	ug/kg	4/30/2014
Fluorene	<250	250	ug/kg	4/30/2014
Hexachlorobenzene	<250	250	ug/kg	4/30/2014
Hexachlorobutadiene	<250	250	ug/kg	4/30/2014



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129136

Parameter	Result	Reporting Limit	Units	Date Analyzed
Hexachlorocyclopentadiene	<250	250	ug/kg	4/30/2014
Hexachloroethane	<250	250	ug/kg	4/30/2014
Indeno(1,2,3-cd)pyrene	<250	250	ug/kg	4/30/2014
Isophorone	<250	250	ug/kg	4/30/2014
2-Methylnaphthalene	<250	250	ug/kg	4/30/2014
Naphthalene	<250	250	ug/kg	4/30/2014
2-Nitroaniline	<250	250	ug/kg	4/30/2014
3-Nitroaniline	<250	250	ug/kg	4/30/2014
4-Nitroaniline	<250	250	ug/kg	4/30/2014
Nitrobenzene	<250	250	ug/kg	4/30/2014
N-Nitrosodi-n-propylamine	<250	250	ug/kg	4/30/2014
N-Nitrosodiphenylamine	<250	250	ug/kg	4/30/2014
Phenanthrene	<250	250	ug/kg	4/30/2014
Pyrene	<250	250	ug/kg	4/30/2014
1,2,4-Trichlorobenzene	<250	250	ug/kg	4/30/2014
4-Chloro-3-methylphenol	<250	250	ug/kg	4/30/2014
2-Chlorophenol	<250	250	ug/kg	4/30/2014
o-Cresol	<250	250	ug/kg	4/30/2014
m-Cresol**	<250	250	ug/kg	4/30/2014
p-Cresol**	<250	250	ug/kg	4/30/2014
2,4-Dichlorophenol	<250	250	ug/kg	4/30/2014
2,4-Dimethylphenol	<250	250	ug/kg	4/30/2014
2,4-Dinitrophenol	<1300	1300	ug/kg	4/30/2014
4,6-Dinitro-2-methylphenol	<1300	1300	ug/kg	4/30/2014
2-Nitrophenol	<250	250	ug/kg	4/30/2014
4-Nitrophenol	<1300	1300	ug/kg	4/30/2014
N-Nitrosodimethylamine	<250	250	ug/kg	4/30/2014
Pentachlorophenol	<1300	1300	ug/kg	4/30/2014
Phenol	<250	250	ug/kg	4/30/2014
2,4,5-Trichlorophenol	<250	250	ug/kg	4/30/2014
2,4,6-Trichlorophenol	<250	250	ug/kg	4/30/2014



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129136

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
	Percent Recovery			Control Limits
Surrogate				
2,4,6-Tribromophenol	76.8			(43 - 142)
2-Fluorobiphenyl	84.5			(53 - 115)
2-Fluorophenol	71.5			(41 - 101)
Nitrobenzene-d5	83.1			(56 - 105)
Phenol-d6	74.7			(46 - 108)
p-Terphenyl-d14	90.7			(52 - 140)



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS

Matrix: Oil

Data Entry Batch: 129136

Parameter	Spike Percent	Control	Date
	Recovery	Limits	Analyzed
1,2,4-Trichlorobenzene	76.0	(48.4 - 106.0)	4/30/2014
1,4-Dichlorobenzene	72.7	(47.1 - 97.5)	4/30/2014
2,4-Dinitrotoluene	76.0	(56.7 - 112.0)	4/30/2014
2-Chlorophenol	75.1	(51.0 - 94.0)	4/30/2014
4-Chloro-3-methylphenol	71.3	(60.2 - 103.0)	4/30/2014
4-Nitrophenol	49.2	(29.8 - 125.0)	4/30/2014
Acenaphthene	76.5	(52.3 - 111.0)	4/30/2014
N-Nitrosodi-n-propylamine	76.2	(39.2 - 131.0)	4/30/2014
Pentachlorophenol	62.3	(48.0 - 113.0)	4/30/2014
Phenol	65.8	(30.8 - 104.0)	4/30/2014
Pyrene	84.1	(52.5 - 124.0)	4/30/2014

Surrogate	Percent	Control
	Recovery	Limits
2,4,6-Tribromophenol	87.7	(42.7 - 142.0)
2-Fluorobiphenyl	85.8	(52.5 - 115.0)
2-Fluorophenol	76.0	(41.2 - 101.0)
Nitrobenzene-d5	81.6	(56.2 - 105.0)
Phenol-d6	82.1	(45.7 - 108.0)
p-Terphenyl-d14	95.9	(51.5 - 140.0)



Matrix Spike QC Report

QC Type: 1404-00428-003 MS/MSD

Matrix: Solid

Data Entry Batch: 129137

Analysis Date: 4/30/2014

Parameter	MS Recovery	MSD Recovery	Control Limits	RPD	Control Limits
1,4-Dichlorobenzene	60.7 %	62.5 %	(47 - 98)	2.9	(0 - 22)
2,4-Dinitrotoluene	64.2 %	67.3 %	(57 - 112)	4.7	(0 - 20)
2-Chlorophenol	62.7 %	64.2 %	(51 - 94)	2.4	(0 - 23)
4-Chloro-3-methylphenol	47.2 %	61.5 %	(60 - 103)	26.3	(0 - 21)
4-Nitrophenol	44.3 %	42.3 %	(30 - 125)	4.6	(0 - 24)
Acenaphthene	70.9 %	70.0 %	(52 - 111)	1.3	(0 - 22)
N-Nitrosodi-n-propylamine	67.4 %	70.2 %	(39 - 131)	4.1	(0 - 27)
Pentachlorophenol	43.6 %	47.5 %	(48 - 113)	8.6	(0 - 21)
Phenol	56.9 %	55.8 %	(31 - 104)	2.0	(0 - 23)
Pyrene	80.3 %	84.7 %	(53 - 124)	5.3	(0 - 17)

Surrogate	Recovery	Recovery	Control Limits	RPD	Control Limits
2,4,6-Tribromophenol	74.0 %	72.6 %	(43 - 142)	1.4	(0 - 24)
2-Fluorobiphenyl	71.0 %	75.0 %	(53 - 115)	5.5	(0 - 27)
2-Fluorophenol	67.0 %	66.0 %	(41 - 101)	1.5	(0 - 32)
Nitrobenzene-d5	71.0 %	67.8 %	(56 - 105)	4.3	(0 - 22)
Phenol-d6	70.0 %	73.2 %	(46 - 108)	4.2	(0 - 29)
p-Terphenyl-d14	73.0 %	76.3 %	(52 - 140)	4.0	(0 - 20)



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129138

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Extractable Petroleum Hydrocarbons: C10-C20	<100	100	mg/kg	4/29/2014
Extractable Petroleum Hydrocarbons: C20-C34	<100	100	mg/kg	4/29/2014
<u>Surrogate</u>	<u>Percent Recovery</u>		<u>Control Limits</u>	
n-Triacontane	94.8		(35 - 138)	



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS/LCSD

Matrix: Oil

Data Entry Batch: 129138

<u>Parameter</u>	<u>Spike Percent Recovery</u>	<u>Spike Percent Recovery</u>	<u>Control Limits</u>	<u>RPD RPD</u>	<u>RPD Control Limits</u>	<u>Date Analyzed</u>
Extractable Petroleum Hydrocarbons: C10-C20	71.1	72.2	(47 - 123)	1.5	(0-20)	4/29/2014
<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Percent Recovery</u>	<u>Control Limits</u>	<u>RPD</u>	<u>RPD Control Limits</u>	
n-Triacontane	95.5	95.4	(35 - 138)	0.1	(0-20)	



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129161

Parameter	Result	Reporting Limit	Units	Date Analyzed
Aluminum: SW846-6010B	<25	25	mg/kg	4/29/2014
Antimony: SW846-6010B	<2.0	2.0	mg/kg	4/29/2014
Arsenic: SW846-6010B	<1.0	1.0	mg/kg	4/29/2014
Barium: SW846-6010B	<0.50	0.50	mg/kg	4/29/2014
Beryllium: SW846-6010B	<0.25	0.25	mg/kg	4/29/2014
Cadmium: SW846-6010B	<0.25	0.25	mg/kg	4/29/2014
Calcium: SW846-6010B	<25	25	mg/kg	4/29/2014
Chromium: SW846-6010B	<0.50	0.50	mg/kg	4/29/2014
Cobalt: SW846-6010B	<0.50	0.50	mg/kg	4/29/2014
Copper: SW846-6010B	<2.5	2.5	mg/kg	4/29/2014
Iron: SW846-6010B	<10.0	10.0	mg/kg	4/29/2014
Lead: SW846-6010B	<1.0	1.0	mg/kg	4/29/2014
Magnesium: SW846-6010B	<25	25	mg/kg	4/29/2014
Manganese: SW846-6010B	<0.50	0.50	mg/kg	4/29/2014
Mercury: SW846-7471B	<0.12	0.12	mg/kg	4/29/2014
Nickel: SW846-6010B	<0.25	0.25	mg/kg	4/29/2014
Potassium: SW846-6010B	<25	25	mg/kg	4/29/2014
Selenium: SW846-6010B	<2.5	2.5	mg/kg	4/29/2014
Silver: SW846-6010B	<0.50	0.50	mg/kg	4/29/2014
Sodium: SW846-6010B	<25	25	mg/kg	4/29/2014
Thallium: SW846-6010B	<2.5	2.5	mg/kg	4/29/2014
Vanadium: SW846-6010B	<2.5	2.5	mg/kg	4/29/2014
Zinc: SW846-6010B	<1.0	1.0	mg/kg	4/29/2014



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS

Matrix: Oil

Data Entry Batch: 129161

Parameter	Spike Percent	Control	Date
	Recovery	Limits	Analyzed
Silver: SW846-6010B	105.0	(73.9 - 119.0)	4/29/2014
Aluminum: SW846-6010B	94.7	(79.0 - 118.0)	4/29/2014
Arsenic: SW846-6010B	101.0	(84.4 - 111.0)	4/29/2014
Barium: SW846-6010B	102.0	(86.2 - 115.0)	4/29/2014
Beryllium: SW846-6010B	98.5	(82.0 - 113.0)	4/29/2014
Calcium: SW846-6010B	105.0	(80.0 - 120.0)	4/29/2014
Cadmium: SW846-6010B	99.1	(85.4 - 110.0)	4/29/2014
Cobalt: SW846-6010B	101.0	(85.1 - 112.0)	4/29/2014
Chromium: SW846-6010B	101.0	(85.9 - 114.0)	4/29/2014
Copper: SW846-6010B	102.0	(85.6 - 112.0)	4/29/2014
Iron: SW846-6010B	111.0	(79.9 - 126.0)	4/29/2014
Mercury: SW846-7471B	85.5	(85.4 - 132.0)	4/29/2014
Potassium: SW846-6010B	104.0	(80.0 - 120.0)	4/29/2014
Magnesium: SW846-6010B	102.0	(82.8 - 123.0)	4/29/2014
Manganese: SW846-6010B	98.3	(86.3 - 114.0)	4/29/2014
Sodium: SW846-6010B	121.0	(83.7 - 137.0)	4/29/2014
Nickel: SW846-6010B	100.0	(87.1 - 112.0)	4/29/2014
Lead: SW846-6010B	104.0	(87.2 - 115.0)	4/29/2014
Antimony: SW846-6010B	100.0	(79.6 - 122.0)	4/29/2014
Selenium: SW846-6010B	101.0	(85.2 - 113.0)	4/29/2014
Thallium: SW846-6010B	102.0	(88.5 - 118.0)	4/29/2014
Vanadium: SW846-6010B	111.0	(84.2 - 117.0)	4/29/2014
Zinc: SW846-6010B	117.0	(83.2 - 118.0)	4/29/2014



Matrix Spike QC Report

QC Type: 1404-00428-001 MS/MSD

Matrix: Sludge

Data Entry Batch: 129143

Analysis Date 4/29/2014

<u>Parameter</u>	<u>MS Recovery</u>	<u>MSD Recovery</u>	<u>Control Limits</u>	<u>RPD</u>	<u>Control Limits</u>
Silver: SW846-6010B	24.3 %	38.5 %	(75 - 125)	45.4	(0 - 20)
Arsenic: SW846-6010B	96.7 %	102.4 %	(75 - 125)	5.7	(0 - 20)
Barium: SW846-6010B	166.2 %	145.5 %	(75 - 125)	13.3	(0 - 20)
Cadmium: SW846-6010B	116.9 %	127.7 %	(75 - 125)	8.8	(0 - 20)
Chromium: SW846-6010B	80.8 %	100.0 %	(75 - 125)	21.2	(0 - 20)
Mercury: SW846-7471B	113.4 %	99.7 %	(85 - 132)	12.9	(0 - 22)
Nickel: SW846-6010B	104.2 %	131.2 %	(75 - 125)	23.0	(0 - 20)
Lead: SW846-6010B	143.7 %	195.5 %	(75 - 125)	30.5	(0 - 20)
Selenium: SW846-6010B	100.1 %	104.4 %	(75 - 125)	4.2	(0 - 20)



Post Digestion Spike QC Report

QC Type: 1404-00428-001 PDS

Matrix: Sludge

Data Entry Batch: 129143

<u>Parameter</u>	<u>Spike Percent Recovery</u>	<u>Date Analyzed</u>
Arsenic: SW846-6010B	97.8	4/29/2014
Barium: SW846-6010B	95.0	4/29/2014
Cadmium: SW846-6010B	95.1	4/29/2014
Chromium: SW846-6010B	95.6	4/29/2014
Lead: SW846-6010B	95.6	4/29/2014
Nickel: SW846-6010B	94.5	4/29/2014
Selenium: SW846-6010B	98.3	4/29/2014
Silver: SW846-6010B	71.8	4/29/2014



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Oil

Data Entry Batch: 129177

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Aroclor 1016	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1221	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1232	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1242	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1248	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1254	<1.0	1.0	mg/kg	4/29/2014
Aroclor 1260	<1.0	1.0	mg/kg	4/29/2014

Surrogate

Decachlorobiphenyl

Tetrachloro-m-xylene

<u>Percent Recovery</u>	<u>Control Limits</u>
84.6	(56 - 131)
63.2	(59 - 121)



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS/LCSD

Matrix: Oil

Data Entry Batch: 129177

<u>Parameter</u>	<u>Spike Percent</u>	<u>Spike Recovery</u>	<u>Control</u>	<u>RPD</u>	
	<u>Recovery</u>	<u>Percent</u>	<u>Limits</u>	<u>Control</u>	<u>Date</u>
Aroclor 1016	53.4	55.0	(34 - 143)	3.0	(0-20) 4/29/2014
Aroclor 1260	53.2	54.4	(44 - 128)	2.2	(0-20) 4/29/2014
<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Percent Recovery</u>	<u>Control Limits</u>	<u>RPD</u>	<u>Control Limits</u>
Decachlorobiphenyl	69.0	68.8	(56 - 131)	0.3	(0-20)
Tetrachloro-m-xylene	65.6	67.0	(59 - 121)	2.1	(0-20)



Method Blank QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: Method Blank

Matrix: Solid

Data Entry Batch: 129179

<u>Parameter</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>
Aroclor 1016	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1221	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1232	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1242	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1248	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1254	<0.10	0.10	mg/kg	4/29/2014
Aroclor 1260	<0.10	0.10	mg/kg	4/29/2014

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Control Limits</u>
Decachlorobiphenyl	76.0	(66 - 131)
Tetrachloro-m-xylene	111.0	(64 - 130)



Laboratory Control Spike QC Report

EAG Workorder: 140400451

Client: Weston Solutions

Client Project: Baker Perkins SA

QC Type: LCS

Matrix: Solid

Data Entry Batch: 129179

Parameter	Spike Percent	Control	Date
	Recovery	Limits	Analyzed
Aroclor 1016	130.0	(75.9 - 141.0)	4/29/2014
Aroclor 1260	126.0	(73.4 - 140.0)	4/29/2014
<hr/>			
Surrogate	Percent	Control	
	Recovery	Limits	
Decachlorobiphenyl	77.4	(66.2 - 131.0)	
Tetrachloro-m-xylene	111.0	(64.2 - 130.0)	



Matrix Spike QC Report

QC Type: 1404-00494-001 MS/MSD

Matrix: Solid

Data Entry Batch: 129219

Analysis Date 4/29/2014

<u>Parameter</u>	<u>MS Recovery</u>	<u>MSD Recovery</u>	<u>Control Limits</u>	<u>RPD</u>	<u>Control Limits</u>
Aroclor 1016	105.0 %	122.0 %	(76 - 141)	15.0	(0 - 19)
Aroclor 1260	85.0 %	94.5 %	(73 - 140)	10.6	(0 - 16)
<u>Surrogate</u>	<u>Recovery</u>	<u>Recovery</u>	<u>Control Limits</u>	<u>RPD</u>	<u>Control Limits</u>
Decachlorobiphenyl	65.0	74.4	(66 - 131)	12.9	(0 - 11)
Tetrachloro-m-xylene	51.0	116.4	(64 - 130)	77.5	(0 - 13)



Sample Duplicate QC Report

QC Type: 1404-00435-001D

Matrix: Sludge

Data Entry Batch: 129184

Date Analyzed: 05/02/2014

Parameter
Corrosivity: SW846-9045C

Parameter	<u>Sample</u>	<u>Duplicate</u>	RPD	<u>RPD</u>
	<u>Result</u>	<u>Result</u>		<u>Control</u>
Corrosivity: SW846-9045C	7.8	7.8	0	(0-20)



EA GROUP

Environmental Analysis
and Management

Sample Receipt Confirmation

April 25 ,2014

Weston Solutions

Lisa Graczyk

Client Project: Baker Perkins SA

EA Group Project Number: 140400451

Shipped Via: EA Group Courier

Checked By: LAF

Were coolers sealed? (tape or custody seals)

Y N N/A _____

Was a Chain of Custody form included?

Y N _____

Was the Chain of Custody signed and dated?

Y N _____

Was the client & project name identified and legible

Y N _____

Were sample containers intact?

Y N _____

Were the sample labels intact and legible?

Y N _____

Did the samples match the Chain of Custody?

Y N _____

Were the correct sample containers / preservatives used?

Y N _____

Is there sufficient sample volume for the requested analysis?

Y N _____

Did the samples arrive within holding time?

Y N _____

Was the pH tested on preserved water samples?

Y N _____

Did the pH meet method requirements?

Y N _____

Was any preservative added at login?

Y N _____

Were air bubbles present in VOA water samples?

Y N _____

For 8260B / 5035 samples, was an Encore or Terracore provided?

Y N _____

For above analysis, was a container provided for moisture?

Y N _____

Was proper collection media used for air samples?

Y N _____

Type of ice used wet ice packs dry ice none

Y N _____

Were any samples frozen?

Temperature of samples 5.9 °C



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EAGROUP

CHAIN OF CUSTODY

EAG WORK ORDER # 4-451

PAGE 1 OF 1

PLEASE DO NOT SEPARATE FORMS

Company Name WESTON SOLUTIONS, INC.		Report Address 30 North Western Avenue, Suite 2035 Chicago IL 60606		City Chicago		Billing Address Same	
Phone 312-424-3339		Fax 312-424-3330		State IL		Zip 60606	
Report Attention LISA KACZAK		Email LKACZAK@CSS-CHICAGO.COM		Project Name BAKER PERIODS SA		P.O. # Quote # -	
SAMPLE IDENTIFICATION		MATRIX		COLLECTION TIME		COLLECTION DATE	
BP-L1Q-01		OL		0950		4/23/14	
BP-L1Q-02		OL		1005		4/23/14	
BP-L1Q-03		OL		1045		4/23/14	
BP-WB-01		SL		0830		4/23/14	
BP-WB-02		SL		0835		4/23/14	
BP-WB-03		SL		0910		4/23/14	
BP-WB-04		SL		0920		4/23/14	
BP-WB-05		SL		—		4/23/14	
BP-WB-DUPL		—		—		—	
<input type="checkbox"/> Fax Results <input type="checkbox"/> Email Results (.pdf) <input type="checkbox"/> Printed Results <input type="checkbox"/> Printed Method Protocol <input type="checkbox"/> Printed Additional Comments							
Method of shipment: EAG		Client FedEx UPS Other		Received by (sign) J. D. Brown		Date/Time 4/23/14 10:55	
Relinquished by (sign) J. D. Brown		Received by (sign) J. D. Brown		Date/Time 4/23/14 10:55		<input type="checkbox"/> VAP <input type="checkbox"/> BUSTR <input type="checkbox"/> OTHER _____	
Relinquished by (sign) J. D. Brown		Received by (sign) J. D. Brown		Date/Time 4/23/14 10:55			
Relinquished by (sign) J. D. Brown		Received by (sign) J. D. Brown		Date/Time 4/23/14 10:55			